

CLAIMS

What is claimed is:

1. An improved arrangement of the spatial relationship between the functional elements of a row crop harvester attachment for mounting on and co-acting with the functional elements of a mobile threshing unit comprising:

- a) a row crop harvester having a main frame attachment mounted to a mobile harvesting threshing unit;
- b) a first conveyor system in said row crop harvester including a power source, said power source connected to a plurality of row units mounted on said main frame for removing grain from the stalks and conveying the material including grain up a first inclined plane to exits from said first conveyor system;
- c) a second conveyor system, at right angles to said first conveyor system, including a power source for receiving the harvested material from the exits of said first conveying system;
- d) said second conveyor system conveying said material from the exits of said first conveyor system to an area at the center of the plurality of row units for exit from said second conveyor system;
- e) said second conveyor system having two inclined plane surfaces between the entrance and the exit;
- f) the inclined plane surfaces at the entrance to and the exit from said second conveyor system are inclined equally and in a opposite direction when said second system is perpendicular to the ground;
- g) an open area connected by an inclined plane between the exit of the second conveying system to entrance of said mobile threshing unit;
- h) a third conveying system including a power source in said mobile threshing unit for retrieving material in said open area and delivering the material to the thresher mechanism.

2. The invention in accordance with claim 1 wherein said second conveying system comprises an auger with flighting and a trough containing said auger.

3. The invention in accordance with claim 2, wherein said auger flighting is reversed on opposite sides of the centerline of said auger and said trough ends at a center area.

4. The invention in accordance with claim 1, wherein said first and second conveyor systems are moved vertically upwardly with relation to said third conveying unit, an amount sufficient to reduce the angle of the vertically inclined plane from said second conveying system exit to the entrance of said third conveying system.

5. The invention in accordance with claim 1, wherein horizontal adjustment of said first and second conveyor systems with respect to said third conveyor system is accomplished by moving laterally the connection of the header unit relative to the mobile threshing unit to reduce the angle of the inclined planes.

6. The invention in accordance with claim 1, wherein horizontal adjustment of said first and second conveyor system with respect to third conveyor system is accomplished by moving laterally the connection of the header unit relative to the mobile threshing unit to reduce distance between exit of said second conveyor system to the third conveyor system.

7. The invention in accordance with claim 4 where in said vertical movement between said first and second conveyor systems and said third conveying system is by a spacer element.

8. The invention in accordance with claim 5, wherein said horizontal movement between said first and second conveyor system and said third conveyor system is by a spacer element.

9. The invention in accordance with claim 5, wherein the spacer is rectangular in shape.

10. The invention in accordance with claim 5, wherein the spacer is a trapezoidal piece between the header unit and the threshing unit.

11. The invention in accordance with claim 4, wherein a feeder plate is attached to said second conveyor unit bridging between said second conveyor unit and said third conveying unit.

12. The invention in accordance with claim 11, wherein said feeder plate is made of elastomeric material to conform to variations in movement between the second and third conveying units.

13. The invention in accordance with claim 5, wherein a filler plate is added at the side of resultant the opening between the second conveyor system and the third conveying system.

14. The invention in accordance with claim 5, wherein a feeder plate is attached to said second conveyor unit bridging between said second conveyor unit and said third conveying unit.

15. The invention in accordance with claim 14, wherein said feeder plate is made of elastomeric material to conform to variations in movement between the second and third conveying units.